

WHAT IS CLAIMED IS:

- Sub H17
- 5
1. A computer system, comprising:
- a runtime operating environment that comprises a computer processor and an operating system adapted to execute:
- 10 a first object code portion containing instructions for eliciting certain actions from a Java virtual machine (JVM) associated with any of the plurality of operating environments;
- 15 a second object code portion containing instructions for eliciting certain actions from the operating system associated with the runtime operating environment; and
- 20 first and second source code portions, wherein the first object code portion is derived from the first source code portion, the second object code portion is derived from the second source code portion, and wherein the second source code portion is adapted to derive a third object code portion containing instructions for eliciting certain actions from a second operating environment, different from the runtime operating environment.
- 25 2. The computer system as recited in claim 1, wherein execution of the instructions contained within the first and second object code portions may be initiated by a Java application program acting within the runtime operating environment.
- 30 3. The computer system as recited in claim 1, wherein the first source code portion comprises definitions of Java abstract windowing toolkit (AWT) Component Peer classes written in the Java programming language.

4. The computer system as recited in claim 1, wherein the second source code portion comprises definitions of native methods of Java AWT Component Peer classes written in the C/C++ programming language.

5. The computer system as recited in claim 1, wherein the second object code portion comprises a host platform interface (HPI) between the AWT Component Peer classes and the runtime operating environment.

6. A method for interfacing an application program to a runtime operating environment comprising a computer processor and an operating system, the method comprising:

deriving from a first source code portion a first object code portion containing instructions executable by the computer processor within the runtime operating environment for eliciting certain actions from a Java virtual machine (JVM) associated with the runtime operating environment;

deriving from a second source code portion a second object code portion containing instructions executable by the computer processor within the runtime operating environment for eliciting certain actions from the operating system within the runtime operating environment; and

deriving from the second source code portion a third object code portion containing instructions executable by a second computer processor within a second operating environment for eliciting certain actions from said second operating environment, wherein the second operating environment is different from the runtime operating environment.

7. The method as recited in claim 6, further comprising an active Java application program acting within the runtime operating environment to initiate execution of the instructions contained within the first and second object code portions.

5 8. The method as recited in claim 6, further comprising defining Java AWT Component Peer classes in the first source code portion.

9. The method as recited in claim 6, wherein the first source code portion is written in the Java programming language.

10

10. The method as recited in claim 6, further comprising defining native methods of Java AWT Component Peer classes in the second source code portion.

15

11. The method as recited in claim 6, wherein the second source code portion is written in the C/C++ programming language.

12. The method as recited in claim 6, further comprising defining a host platform interface (HPI) between the AWT Component Peer classes and the runtime operating environment in the second object code portion.

20

13. A computer-readable storage device, comprising:

a runtime operating environment comprising computer processor and an operating system;

25

a first object code portion, containing instructions executable by the computer processor within the runtime operating environment for eliciting certain actions from a Java virtual machine (JVM) associated with the runtime operating environment;

30

a second object code portion, wherein the object code contains instructions executable by the computer processor within the runtime operating environment for eliciting certain actions from the operating system within the runtime operating environment; and

5

first and second source code portions, wherein the first object code portion is derived from the first source code portion, the second object code portion is derived from the second source code portion, and wherein the second source code portion is adapted to derive a third object code portion containing instructions executable by a second computer processor within a second operating environment for eliciting certain actions from said second operating environment, wherein the second operating environment is different from the runtime operating environment.

10

14. The computer-readable storage device as recited in claim 13, wherein the first source code portion comprises definitions of at least some of the Java AWT Component Peer classes.

15

15. The computer-readable storage device as recited in claim 13, wherein the second object code portion comprises a host platform interface (HPI) between the AWT Component Peer classes and the runtime operating environment.

20

25

T01290:5658350